G0228

REMARKS

Claims 1-25 are currently pending in the subject application and are presently under consideration. Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

I. Election/Restrictions

It is acknowledged by the applicant's representative that claims 21-24 are hereby withdrawn from further consideration as being drawn to a non-elected invention. Further, claims 1-20 and 25 have been elected with traverse and are currently pending in the subject invention.

II. Rejection of Claims 1-8, 15-20, and 25 Under 35 U.S.C. §102(b)

Claims 1-8, 15-20, and 25 stand rejected under 35 U.S.C. §102(b) as being anticipated by Latos (US Patent No. 4,208,240). It is respectfully requested that this rejection be withdrawn for at least the following reason. Latos does not teach or suggest each and every element of the subject claims.

A single prior art reference anticipates a patent claim only if it expressly or inherently describes each and every limitation set forth in the patent claim. Trintec Industries, Inc., v. Top-U.S.A. Corp., 295 F.3d 1292, 63 U.S.P.Q.2D 1597 (Fed. Cir. 2002); See Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the ... claim. Richardson v. Suzuki Motor Co., 868 F.2d 1226, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Independent claims 1, 15 and 25 recite a system for monitoring the etching of apertures in an alternating aperture phase shift mask (AAPSM) utilizing a light based measuring system. This limitation provides for enhancing conventional lithographic techniques for etching materials by allowing more precise and smaller size features to be fabricated. In contrast, Latos fails to disclose or suggest a system for monitoring the etching of apertures in an AAPSM. Instead, Latos utilizes a measurement system coupled with

G0228

standard lithographic techniques that does not require a highly precise measuring system employed with the fabrication of an AAPSM.

Furthermore, Latos does not teach or suggest a system which measures a plurality of features at substantially the same time such as depth, width, shape and trench wall slopes of apertures as recited in claims 1, 15 and 25. In the Office Action dated April 8, 2003, the Examiner relies on Fig. 1 of Latos to teach this limitation. However, measuring a plurality of features at substantially the same time is not shown in Figure 1. Rather, this figure teaches a system which measures the surface of a single feature at a time. In contrast, the present invention provides for "a system [that] may employ one or more light sources arranged to project light on one or more aperture and/or gratings on a makes being fabricated and one or more light sensing devices for detecting light reflected and/or refracted by the one or more apertures or gratings." (page 5, lines 10-15). Latos does not teach or suggest the measurement of a plurality of features at substantially the same time as the present invention does.

Moreover, independent claim 25 recites means for selectively controlling the etching of one or more apertures based on analysis of data collected by the means for sensing a plurality of dimensions associated with a plurality of apertures. However, Latos does not teach or suggest the means for monitoring and controlling several features of an aperture and further does not teach or suggest the means for discretely selecting and controlling a specific aperture for monitoring during the fabrication process as claim 25 recites

As Latos does not disclose or suggest measuring a plurality of features in relation to AAPSM fabrication, Latos does not anticipate the subject invention as recited in claims 1, 15, and 25 and claims 2, 3, 4, 5, 6, 7, 8, 16, 17, 18, 19, and 20 which depend therefrom. Accordingly, this rejection should be withdrawn.

G0228

III. Rejection of Claims 9-14 Under 35 U.S.C. § 103(a)

Claims 9-14 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Latos (US Patent No. 4,208,240) in view of Niu et al. (Specular Spetroscopic scatterometry in DUV Lithography). It is respectfully submitted that this rejection should be withdrawn for at least the following reasons. Latos in combination with Niu et al. does not anticipate the subject invention as recited in claim 1 and claims 9-14 which depend therefrom. Accordingly, this rejection should be withdrawn.

IV. Double Patenting

Claims 1-20 and 25 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-13 of copending Application No. 09/893,271. Also, claims 1-20 and 25 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-13, 25, 26 of copending Application No. 09/893,186. Withdrawal of this rejection is respectfully requested in view of the terminal disclaimer filed herewith.

09/955.517

G0228

V. Conclusion

The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063.

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicant's undersigned representative at the telephone number listed below.

Respectfully submitted,

AMIN & TUROCY, LLP

Himanshu S. Amin Reg. No. 40,894

AMIN & TUROCY, LLP 24TH Floor, National City Center 1900 E. 9TH Street Cleveland, Ohio 44114 Telephone (216) 696-8730 Facsimile (216) 696-8731